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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional): 4740-212/P18368-US1	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] Date: May 24, 2006 Signature:  Typed or printed name: SEASON MUNCK		Application Number: 10/676,965	Filed: October 1, 2003
		First Named Inventor: Wanshi Chen	
		Art Unit: 2686	Examiner: KWASI KARIKARI
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant/inventor</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record Registration Number: <u>44,958</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration Number if acting under 37 CFR 1.34 _____</p> <div style="text-align: right; margin-top: 20px;"> _____ Signature _____ Michael D. Murphy Typed or Printed Name _____ (919) 854-1844 Telephone Number _____ May 24, 2006 Date</div>			
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.			
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Chen et al.

Serial No.: **10/676,965**

Filed: **October 1, 2003**

For: **Method and Apparatus to Improve CDMA
Reverse Link Performance**

Docket No: **4740-212 / P18368-US1**

PATENT PENDING

Examiner: Kwasi Karikari

Group Art Unit: 2686

Confirmation No.: 8121

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May 24, 2006

Date

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ARGUMENTS IN SUPPORT OF PRE-APPEAL BRIEF REVIEW REQUEST

Applicants present the following arguments in support of the Pre-Appeal Brief Review Request attached herewith. The Final Office Action (FOA) rejects independent claims 1, 10, and 17 and various ones of their dependent claims as obvious over U.S. Patent No. 5,999,522 (Rohani) further in view of U.S. Patent No. 5,625,876 (Gilhousen). These rejections fail as a matter of law because the combination does not teach or suggest all limitations of the rejected claims, and, independently, because the proffered motivation to combine Gilhousen with Rohani is mere speculation wholly unsupported by the references themselves.

In simple terms, all independent claims include an explicit limitation directed to forcing "always-softer" reverse link handoff conditions at a multi-sector radio base station for mobile stations if a reverse link is assigned to a mobile station from a serving sector of that radio base station. Conventional networks provide softer reverse link handoff, but they do not "force" softer reverse link handoff. As the instant application carefully explains, conventional multi-sector radio

base stations use softer reverse link handoff—defined as simultaneously receiving data from a mobile station on two or more radio sectors of the same radio base station—whenever a mobile station is moving between radio sector coverage areas. For example, as a mobile station moves between first and second radio sectors of the same base station, the base station may use both sectors to receive data from the mobile station until the signal strength in the second sector is sufficient. To preserve reverse link resources, a conventional network would then drop the reverse link in the first sector, thus ending the softer reverse link handoff condition.

In plain error, the FOA states that Rohani teaches the claimed limitation of forcing or implementing always-softer reverse link handoff conditions. Specifically, the Office supports its key rejection arguments by referring to Fig. 2 of Rohani and the corresponding text in col. 4. There, the Office alleges that Rohani teaches a multi-sector cell 200, wherein a mobile terminal 290 transmits a reverse link signal 215 to a sector 210 of cell 200, but where signal powers 216 and 217 are also received at additional sectors 220 and 260 of cell 200, because the reverse link signal 215 propagates in all directions. At lines 13-15 of Item 1 on p. 2 of the FOA, the Office explicitly states that these particular teachings of Rohani correspond to "an assignment of multiple (two or more) reverse links" and, therefore, "indeed meets the argued limitations of assigning multiple reverse links at different sector [sic] in claims 1, 7, and 10."

The legal and technical deficiencies of the above rejection argument are manifold. First, Applicants do not claim the transitory always-softer handoff condition as provided by conventional networks. Thus, even if the cited Rohani teachings were relevant to softer reverse link handoff, they would be squarely within the conventional art. Indeed, the instant application explains that conventional networks temporarily use soft and softer handoff on a mobile station's reverse link signal. Applicants did not claim conventional softer reverse link handoff, but rather claimed **forcing** always-softer reverse link handoff conditions. That limitation contrasts with the

conventional approach to softer reverse link handoff and it is a limitation not taught, suggested, or even hinted at by Rohani, and it is utterly ignored by the Office.

Second, the Rohani teachings relied upon by the Office do not even relate to softer reverse link handoff, conventional or otherwise. Instead, Rohani discloses determining a list of base stations/sectors that are candidates for serving a mobile station based on relative signal strength. Specifically, Fig. 2 and col. 4, lines 7-16 of Rohani explicitly explain that a mobile station 290 is in communication with sector 210 of a multi-sector cell 200 via reverse link signal 215. By stating that the mobile station 290 is in communication with sector 210, Rohani directly implies that only sector 210 in cell 200 is actually receiving data from mobile station 290 (via the reverse link signal 215). Thus, there is no basis to assert that the illustrated reception scenario has anything to do with Applicants' forced always-softer reverse link handoff as claimed. Indeed, the signals 216 and 217 that allegedly represent always-softer reverse links are identified by Rohani as "power" signals resulting from the multi-directional propagation of reverse link signal 215.

Applicants readily acknowledge that reverse link signal 215 propagates in all directions, but the fact that Rohani refers to 216 and 217 as power signals in combination with stating that signal 215 is used for "communication" makes clear that Rohani uses the signals 216 and 217 for candidate set signal strength measurement and not for always-softer handoff reverse link signal combining. That is, simply measuring the signal strength of a mobile station's reverse link signal at multiple sectors does not meet the explicit limitations of Applicants' claims. All of Applicants' independent claims include a limitation directed to combining the softer handoff signals to obtain a combined reverse link signal for processing. By referring to signals 216 and 217 as "power" signals, Rohani makes clear that those signals are "received" in the sense that their signal strength is measured for candidate list processing, but not for combining with signal 215, as would be done within the meaning of Applicant's claims.

Thus, in rejecting the independent claims, the Office ignores the forcing limitation of Applicants' claims, overlooks the fact that Rohani does not offer teachings on softer reverse link handoff, and incorrectly analyzes signal strength measurement operations in Rohani as the claimed forcing of always-softer reverse link handoff. Gilhousen does not remedy these fatal failings of the Office's Rohani/Gilhousen obviousness rejection.

The Office uses Gilhousen only for its alleged teachings regarding signal combining. Actually, that use of Gilhousen is curious in that the Office's rejection arguments rely on the assertion that Rohani by itself teaches assigning multiple reverse links from the same mobile terminal to different sectors of the same base station (see Item 1 on p. 2 of the FOA). If Rohani assigns multiple reverse links within the meaning of Applicants' claims as the Office alleges, then, by definition, Rohani would inherently have some means of combining or reconciling the multiple signals from such links. It is pure speculation, then, to suggest that Gilhousen's teachings would benefit Rohani, or even be applicable to Rohani, or be in any way obvious to incorporate into Rohani. Thus, the Office's conclusory and unsupported motivation-to-combine arguments stand as a further reason for withdrawing the rejection of claims 1, 10, and 17 (and their various dependents).

The rejection of dependent claims 4 and 13 is another example of the Office's failure to satisfy its burden of establishing a prima facie case of obviousness. Claims 4 and 13 recite the further limitation of assigning one or more additional reverse links **irrespective** of whether the corresponding sectors are included in a current active set of the mobile station. The Office states that the Rohani-Gilhousen combination discloses the 'irrespective' assignment limitation in that Rohani teaches "sector 220 which is on the candidate list receives reverse link signal [sic]" (see last paragraph starting on p.4 of the FOA). According to Rohani, if sector 220 is on the candidate list, it is already in the active set, so the Office's argument stands in clear error. The Office simply is ignoring the irrespective limitation of claims 4 and 13.

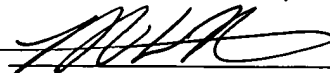
Yet another example of the Office's clear technical and legal error lies in the arguments presented in support of the rejection of dependent claims 9 and 16. Claims 9 and 16 recite the further limitation of increasing a finger search window used by RAKE receiver circuits in conjunction with forcing the always-softer reverse link handoff. The Office alleges that the search window dependent claim feature is taught by the Rohani-Gilhousen combination in that the base station receiver 298 of Rohani allegedly measures all reverse link signals received at various sectors and compares their relative signal strength (see last paragraph on p.5 of the FOA). None of those operations have any relevance to the explicit limitations of claims 9 and 16. Thus, the rejection argument is wholly unsupported by the cited references.

Further, the FOA rejects various other dependent claims as being unpatentable over the Rohani-Gilhousen combination further in view of either U.S. Publication No. 2002/0037726 A1 (Czaja) or U.S. Publication No. 2002/0154610 A1 (Tiedemann). However, neither Czaja nor Tiedemann cure the legal and technical deficiencies of the Rohani-Gilhousen combination, and thus, the corresponding rejections fail for at least those reasons given earlier.

In light of the above remarks, applicants submit that all claims 1-24 are not obvious over Rohani further in view of Gilhousen. As such, applicants respectfully request that the Office withdraw all rejections outstanding in the FOA as being in clear error, both legally and technically.

Respectfully submitted,

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